CLAIMS

1. A method of forming a semiconductor device comprising:

forming at least one conductive structure within a plurality of semiconductor substrates, said act of forming comprising first forming said at least one conductive structure to extend into a respective semiconductor substrate a distance that is less than an elevational thickness of the substrate, and second removing substrate material elevationally adjacent said one conductive structure effective to expose a surface of said one conductive structure, at least portions of one of the conductive structures having oppositely facing, exposed outer surfaces; and

stacking individual substrates together such that individual conductive structures on each substrate are in electrical contact with the conductive structures on a next adjacent substrate.

2. The method of claim 1, wherein said stacking of the substrates comprises stacking singulated semiconductor die.

3. The method of claim 1, wherein said at least one conductive structure comprises aluminum.

4. The method of claim 1, wherein said at least one conductive structure comprises multi-layered pad structures.

5. The method of claim 1, wherein said at least one conductive structure is not disposed at the periphery of the substrates.

6. The method of claim 1, wherein said stacking of the substrates comprises stacking singulated die, and wherein said at least one conductive structure is disposed within the center of the die.

7. The method of claim 1, wherein the substrates support memory devices.

8. The method of claim 1, wherein the substrates support DRAM devices.

9. A method of forming a semiconductor device comprising:

forming at least one conductive structure within each of a plurality of semiconductor substrates, said at least one conductive structure comprising a multi-layered structure formed through successive depositions and etchings and having oppositely-facing surfaces;

exposing portions of each oppositely-facing surface on at least one of the substrates; and

processing the substrates sufficient to form electrical connections between the substrates, said processing comprising stacking the substrates on one another so that the conductive structures on adjacent substrates are electrically connected.

10. The method of claim 9, wherein said exposing comprises removing portions of said at least one substrate to expose at least one of the oppositely-facing surfaces.

11. The method of claim 9, wherein said exposing comprises etching portions of said at least one substrate to expose at least one of the oppositely-facing surfaces.

12. The method of claim 9, wherein said exposing comprises selectively etching portions of said at least one substrate relative to material from which the conductive structure is formed to expose at least one of the oppositely-facing surfaces.

13. The method of claim 9, wherein said processing comprises forming additional conductive material over and in electrical contact with said exposed portions.

14. The method of claim 13, wherein said forming of the additional conductive material comprises plating conductive material over and in electrical contact with said exposed portions.

15. The method of claim 13, wherein said forming of the additional conductive material comprises plating more than one conductive material over and in electrical contact with said exposed portions.

16. The method of claim 13, wherein said conductive structures comprise aluminum, and said forming of the additional conductive material comprises plating material comprising nickel over and in electrical contact with said exposed portions.

17. The method of claim 16, wherein said forming of the additional conductive material comprises plating at least one other conductive material over the material comprising nickel.

18. The method of claim 16, wherein said forming of the additional conductive material comprises plating at least one other conductive material comprising gold over the material comprising nickel.

19. A method of forming a semiconductor device comprising:

forming at least one conductive structure within each of a plurality of semiconductor substrates, each conductive structure having oppositely-facing surfaces;

after said forming, exposing portions of at least one oppositely-facing surface on at least one of the substrates, said exposing comprising etching portions of said at least one substrate to expose said at least one surface; and

processing the substrates sufficient to form electrical connections between the substrates by stacking the substrates on one another so that electrical connection can be made between conductive structures on adjacent substrates, said processing comprising:

forming additional conductive material over and in electrical contact with said exposed portions; and

bonding at least some of the additional conductive material on one substrate with additional conductive material on another of the substrates.

20. The method of claim 19, wherein the forming of the additional conductive material comprises plating the additional conductive material over said exposed portions.

21. The method of claim 19, wherein the forming of the additional conductive material comprises plating more than one additional conductive material over said exposed portions.

22. The method of claim 19, wherein said semiconductor substrates support memory devices.

23. The method of claim 19, wherein said semiconductor substrates support DRAM devices.

24. A method of forming a semiconductor device comprising:

forming at least one multi-layered, conductive pad structure within each of a plurality of semiconductor substrates, each conductive pad structure having oppositely-facing surfaces;

exposing portions of each oppositely-facing surface on at least one of the substrates, at least one oppositely-facing surface being exposed by etching portions of said at least one substrate to expose said at least one surface; and

after said exposing, forming additional conductive material over and in electrical contact with said exposed portions by plating more than one additional conductive material over said exposed portions.

25. The method of claim 24 further comprising after said forming of the additional conductive material, stacking the substrates on one another and bonding at least some of the additional conductive material on one substrate with additional conductive material on another of the substrates.

26. A method comprising:

a step for providing a multi-layered structure within a plurality of substrates, the multi-layered structures having a front side and a back side;

a step for thinning at least one of the substrates after providing the multi-layered structure;

a step for exposing portions of the back side of a multi-layered structure of said at least one substrate that was thinned;

a step for forming additional conductive material over and in electrical contact with the multi-layered structure of the substrate that was thinned; and

a step for stacking the substrates such that the multi-layered structures with the substrates are in electrical contact with one another.

27. The method of claim 26, wherein the step for thinning comprises mechanically abrading said at least one substrate.

28. The method of claim 26, wherein the step for exposing portions of the back side of the multi-layered structure of said at least one substrate comprises selectively etching substrate material relative to material from which the multi-layered structure is formed.

29. The method of claim 26, wherein the step for forming additional conductive material comprises forming a first conductive material over the multi-layered structure and then forming a second different material over the first conductive material.